Appropriations Bill

AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS
— INCORPORATED —

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Congressman John E. Fogarty
House Office Building
Washington, D. C. 20515

Dear Congressman Fogarty:

As one of the leaders in the formulation of national policy in the support of science I believe you will be interested in the enclosed resolution.

We hope that the thoughts conveyed therein will receive your careful consideration as you approach the vital issues affecting the future of science and its relations to the national interest.

Yours sincerely,

AKornberg

Arthur Kornberg
President

AK:cap

Enclosure

AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS
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A RESOLUTION ADDRESSED TO THOSE RESPONSIBLE FOR FEDERAL POLICY CONCERNING SUPPORT OF FUNDAMENTAL RESEARCH

(Adopted at regular business meeting, 14 April 1966)

Our purpose is to direct to your attention problems which can be alleviated only by appropriate Federal action.

For some years, government programs have deliberately financed the training of increasing numbers of young scientists. During most of this period, Federal appropriations for research provided some measure of support for newly trained investigators as they emerged. This situation has drastically altered in the last two years; many young, well qualified investigators in almost all fields of science now find it extremely difficult or impossible to obtain the research funds necessary to permit them to utilize their expensive educations.

In most scientific disciplines, American research now leads the world. Since World War II, American scientists have advanced our understanding of the forces and particles which operate in the atomic nucleus, of the mechanisms which make possible chemical reactions, of the basis of gene action, of the intrinsic nature of life itself, and of the manner in which the human body maintains itself despite the wide fluctuations in our environment. And such information, in turn, underlies our markedly improved national capability to deal with the problems of disease and aging and to control environmental pollution; it has provided an abundant agriculture, better transportation and communication, a more secure national defense, and a rich variety of new products from American industry which, increasingly, depends upon a science-based technology.

Withal, the horizons of science remain limitless. The American people, and all mankind, will be amply repaid for the investment in science which is, at once, an exciting national adventure and the means by which we advance our society and enrich our daily lives.

These developments, in very large measure, derive directly from the scale of Federal support of research in all disciplines, research which is conducted in universities and other non-profit laboratories, as well as in the laboratories of industry and of the government itself. Moreover, by such techniques as fellowships and training grants, Federal funds have been deliberately employed to support the education and training for research of a continually increasing number of young men and women. The results of these training programs have been evident over the last five years as more and more of these young scientists have emerged as maturing research investigators.

Students of Federal policy for science have repeatedly concluded that, during this era, a sound policy required an annual increase of about 15% in Federal expenditures in support of extramural research. This figure reflects the numbers of new young scientists entering the field, and the increasing complexity of research equipment, as well as general inflationary trends. Indeed, available projections of the appropriate levels of future Federal expenditures for research rest largely on estimates of the number of students presently in high school or college who will enroll in programs leading to careers as investigators and the cost of supporting their research when they have been so prepared. Failure to take advantage of our investment in the education of competent scientists would be a wasteful course.

Most importantly, it should be recognized that the young scientists who, today, seek their first research support began their educations in scientific research 6 to 10 years ago, usually with Federal support and encouragement through much of that period. If it should become a matter of national policy, for whatever reason, to fix the size of the National research enterprise at some predetermined level, such decision must be made years in advance and implemented by careful limitation of the numbers of young people entering this long and expensive training. Abrupt changes in the pattern of funding must, otherwise, result in serious waste of highly trained and talented young scientists.

And this wasteful situation is precisely where we find ourselves today. Only the National Science Foundation, of all Federal agencies which support scientific research, received a significant budgetary increase for Fiscal Year 1966. But this agency accounts for only 12% of Federal research support in the universities. And, in consequence, in colleges and universities across our land, there are many young scientists on the threshold of their careers who now find themselves unable to cross that threshold. While evident even in the established major centers of academic research, this situation is particularly acute in the less favored states and in the new and developing institutions with rapidly growing student enrollments. For, in such institutions the faculty of predominantly young scientists cannot make temporary use of the facilities of more senior, established investigators, as is more readily possible in the older institutions.

The situation with which we are here concerned has been forcefully called to our attention by a great many scientists in all disciplines and from diverse institutions. The loss of the early and frequently most creative years of these scientists is irretrievable. Moreover, if those talented young people are prevented from taking their places in the scientific community for a few years, the loss is likely to be permanent.

It should be recognized that the present difficult situation arises specifically from the insufficiency of appropriations for research and should not be interpreted as an indication of an oversupply of young scientists. Indeed it is our conviction that it is the inadequacy of our total scientific manpower which limits the rate of advance toward many of our established national goals.

Foremost among those goals is an education system adequate to the aspirations of the rapidly growing numbers of our young people who expect to matriculate in colleges and universities, as well as in graduate and professional schools. If their education in science is to be of the desired caliber, it is imperative that as many of their teachers as possible be scientists who, themselves, participate in the scientific endeavor. And this is feasible only if the Federal budget for support of research and the provision of research facilities be commensurate with the growth of the total system of higher education.

Moreover, we are also concerned that there be a proper balance in the Federal appropriations for applied and fundamental research. Funding policies which would permit excessive numbers of potential teacher-scientists to be diverted from the educational system into organizations engaged exclusively in applied research and development, auguries of which appear with increasing frequency, would both limit the educational capacity of institutions of higher learning and also, shortsightedly, constrain future national capabilities in applied research. As our nation undertakes to address those serious and immediate problems which affect our society and ourselves and which urgently require technical solutions, we must never lose sight of the fact that the technology of tomorrow must rest on the fundamental research of today.

Accordingly, be it resolved that the American Society of Biological Chemists strongly urges

(1) that Federal support of research, by grants awarded competitively on the basis of scientific excellence, be adequate to support qualified young scientists and to sustain the healthy growth of outstanding ongoing research programs;

(2) that the magnitude of Federal support for construction of new research facilities to house the research activities of these emerging scientists and to permit reasonable expansion of successful programs be maintained at least at the current level;

(3) that Federal appropriations in support of science training should not be subject to arbitrary constraint but should be commensurate with projected manpower requirements for the diverse programs by which we shall progress toward our national goals; and

(4) that there be strong Federal support for the basic research necessary to solve the pressing problems of human health and disease and to permit forceful attack on the technological problems of American Society.

Our nation, rich as it is, cannot afford to waste the talents of either the present or the emerging generation of scientists.